

January 23, 2001

Issues in Comparing Capitalization Rates for Leased Fee and Fee Simple Estates

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There are three traditional approaches used by appraisers to estimate value: the income approach, sales comparison approach and cost approach. The income and sales comparison approaches are generally the most reliable for real estate income property. Usually these approaches are used to estimate the value of the property on a leased fee basis, i.e., subject to existing leases because this captures the property rights transferred in the transaction. Appraisal for property taxes is different, however, because value is typically estimated on a fee simple basis that assumes that the property is not encumbered by existing leases. This presents an additional challenge to the appraiser as discussed below.

When properties are sold subject to existing leases, a leased fee interest in the property is conveyed in the transaction. Observed capitalization rates that are based on the sale price for these transactions would be considered a “leased fee capitalization (cap) rate.” Although commercial real estate such as office buildings normally have existing leases in place when they are sold, it is often necessary to value the property *as if* it is not encumbered by existing leases. That is, it is assumed that all the space in the building can be leased at current market rates and terms. This value would be considered a “fee simple” value in the property and capitalization rates based on this value would be a “fee simple capitalization rate.” A fee simple capitalization rate will seldom be the same as a leased fee capitalization rate for a variety of reasons. Obviously the level of rents assumed for a fee simple estate will only be the same as that for a leased fee estate if by coincidence all existing leases are at current market rent levels. Assuming the property is leased at current market rents also has implications for other items that affect the Net Operating Income for the property as well as the value that investors would place on the property. The rest of this paper will look at this issue in more detail.

Fee Simple vs. Leased Fee NOI

Fee simple NOI usually differs from leased fee NOI because rents for a fee simple estate are assumed to be a “market rent” for new leases from tenants who can lease space unencumbered by existing leases.¹ Leased fee NOI could be higher or lower than fee simple NOI. The leased fee NOI is often lower than fee simple NOI because there are existing tenants who pay less rent than the market rent paid for new leases. This can be due to a number of factors including:

¹ The tenants can either be new or existing tenants. The point is that they are able to negotiate new leases at the market rate.

- 1) Market rents are often higher than existing contract rents, especially in a rising rental market.
- 2) The owner of the building is often willing to renew leases to existing tenants at a lower rate than that for new tenants because the owner won't have to spend money, or as much money on tenant improvements (TIs) and leasing commissions.
- 3) The owner may also accept a lower rent because there is less risk associated with keeping an existing tenant with a proven payment history as compared to a new tenant with an unknown payment history.

Differences in the nature of fee simple NOI versus leased fee NOI must be considered when selecting an appropriate capitalization rate for a fee simple estate. For example, as noted above, there is likely to be a much lower amount of TIs and leasing commissions for a leased fee estate where there are existing tenants likely to renew their leases. When valuing a fee simple estate under the assumption that market rents for new tenants are used, the additional amount of TIs and leasing commissions must be taken into consideration. This can be done by either subtracting more TIs and leasing commissions from the NOI when valuing a fee simple estate OR using a higher capitalization rate than that used for a leased fee estate.

Also, if there are existing leases for a leased fee estate that are at below market rents and likely to roll over at a higher rate when the lease is renewed, this expected growth in NOI will be reflected in a lower capitalization rate for the leased fee estate. If all rents are assumed to already be at market rent for a fee simple estate, this growth from lease renewals will not occur and thus a higher capitalization rate must be used for the fee simple estate.

Finally, the higher risk from having new tenants with an unproven payment history requires a higher capitalization rate (additional risk premium) for a fee simple estate compared to that of a leased fee estate. As noted above, rents may be lower for a leased fee estate because owners may be willing to accept lower rent for less risky tenants with a proven payment history.

All of the above factors imply a higher capitalization rate should be used to value a fee simple estate – even higher if the additional TIs and leasing commissions associated with fee simple estates are not explicitly deducted from NOI.

Using capitalization rates derived from leased fee sales in a fee simple valuation

It should be clear that it is not appropriate to utilize capitalization rates derived from leased fee sales in a fee simple valuation analysis without adjusting them for the factors discussed above. This would be analogous to the old cliché of mixing apples and oranges. Although a capitalization rate is applied to the current net operating income for a property, the capitalization rate implicitly reflects expected changes in that income pattern over time. For example, if net operating income is expected to rise as existing

leases are renewed at market rates, investors will accept a lower capitalization rate to purchase the property. Because rents are assumed to be at the market rate for a fee simple value estimate, investors can not expect the same growth in NOI in the future and thus would require a higher capitalization rate. There are also differences in risk between fee simple and leased fee estates. For example, there is less chance that tenants paying below market rents would default on a lease than tenants paying market rents as assumed in fee simple valuation. Thus, capitalization rates for fee simple valuation include a risk premium that is greater than that for capitalization rates used for leased fee valuation with below prevailing rent levels.

Capitalization rates should be selected that are *consistent* with the nature of the NOI that they are intended to be applied to. Leased fee capitalization rates must be applied to the NOI for a leased fee estate. Similarly fee simple capitalization rates must be used to estimate the value of a fee simple estate.

Treatment of Initial Tenant Finish out and/or Leasing Commissions

It is important to recognize that the amount of tenant finish out and/or leasing commissions included when estimating the value of a fee simple estate is not likely to be the same as that used when estimating the value of a leased fee estate. A leased fee estate is based on an existing rent roll and typically makes an assumption as to the probability that existing tenants will renew their leases. Leasing commissions and tenant finish out will be minimal for tenants that renew their lease. Thus, even though the owner may not receive as high a rent on a lease renewal, he or she can also expect to incur less expenses for tenant finish out and/or leasing commissions. In contrast, fee simple valuation makes the hypothetical assumption that all rents are at the current market rate and that the property is not encumbered by existing leases. To be consistent with this assumption, it would also have to be assumed that the expenses incurred for initial tenant finish out and/or leasing commissions would be the amount typical for new leases. That is, we can not assume that many tenants will renew their lease and we will not have to incur these expenses because we have assumed that the space is unencumbered by existing leases.

Furthermore, it should be noted that it is often the case that existing tenants on a lease renewal are not asked to pay as high a rent as new tenants (who pay the market rent) because the owner knows that expenses for tenant finish out and/or leasing commissions will not be incurred or will be lower than for a new tenant. It would therefore be inappropriate to assume that this space paid a higher market rent for fee simple valuation without also assuming that there would be higher expenses for tenant finish out and/or leasing commissions.

The bottom line is that a higher amount of expenses for tenant finish out and/or leasing commissions should normally be assumed when valuing a property as a fee simple estate versus valuing the same property as a leased fee estate. The assumptions about building operating expenses must be consistent with the assumption about rent levels.

Allowance (Reserve) for replacement

Allowance for replacement should normally be included when calculating net operating income for direct capitalization of a fee simple estate. Otherwise the net operating income will be overstated and the value will be overstated, unless the cap rate is adjusted, because it will not account for the fact that certain short-lived building components must be replaced before the end of the economic life of the property.

Use of Investor Surveys of Capitalization Rates

Surveys like the Korpacz Investor Survey reports capitalization rates based on surveys of “equity real estate market participants” who are investing in properties subject to leases. As such, their perception of a property capitalization rate is from the perspective of the owner of a leased fee estate in the real estate.

Because the survey is from the perspective of investors in leased fee estates in the property, the treatment of tenant finish out, leasing commissions, and replacement allowances would be from the perspective of a leased fee estate. Thus, we would expect that the amount of tenant finish out, leasing commissions, and replacement allowances reflected in the calculation of capitalization rates for these properties would be the typical amount for a property subject to leases of varying maturities and renewal probabilities.

Fee Simple vs. Leased Fee Cap Rates Examples

In this section, several numerical examples will be used to illustrate the difference between leased fee and fee simple cap rates. We start with a base case example of the cap rate for a fee simple estate.

Example 1: Fee Simple Cap Rate

Suppose the market rent for a property is \$200,000 the first year and vacancy, collection losses and operating expenses combined total 50% of gross rental income. Net operating income (NOI) is therefore \$100,000. Market rents are assumed to grow at a compound rate of 3% per year after the first year. The property value is expected to increase at the same rate as market rents. Investors would require an 11% rate of return (IRR) to invest in the property. What is the value of the property?

In this example, it can be shown that the capitalization (cap) rate can be calculated by simply subtracting the rental growth rate (3%) from the required IRR (11%) to get a cap rate of 8%.² Using a cap rate of 8%, the value of the property is as follows:

$$\text{Value} = \text{NOI (year 1)} / \text{cap rate}$$

² The formula is $R=Y - CR$ where R is the capitalization rate, Y is the property yield rate (required IRR) and CR is the compound rate of growth in income and value.

$$\text{Value} = \$100,000 / .08 = \$1,250,000$$

To prove that this is the correct answer, we can look at the actual cash flows.

<u>Year</u>	<u>NOI</u>
1	\$100,000
2	103,000
3	106,090
4	109,273
5	112,550

The resale price at the end of the fifth year would be found by increasing the purchase price of \$1,250,000 by 3% per year for 5 years. This results in a resale price of \$1,449,093. The same result can be obtained by applying the same 8% cap rate to the NOI in year 6 which would be \$115,927. Dividing \$115,927 by 8% results in \$1,449,093.³

The property value is found by discounting the NOI shown above for each year as well as the proceeds from resale in year 5. Using a financial calculator or spreadsheet or present value tables to discount the cash flows results in a present value of \$1,250,000, the same answer as found using the 8% cap rate.⁴

The intuition illustrated by this problem is that the rate of return required by investors (11%) is the sum of the cap rate (8%) and the expected increases in NOI and property value over time (3%). The cap rate is the “current” return and the growth in NOI and value is the expected “future” return. This is a very basic relationship between cap rates and discount rates. It is important to recognize, however, that the simple relationship illustrated above does not work when existing leases prevent the NOI from increasing at the same rate as market rents. This will be illustrated below.

³ Slight difference due to rounding.

⁴ We could also find the present value as follows. $\text{Value} = 100,000/(1.11) + 103,000/(1.11)^2 + 106,090/(1.11)^3 + 109,273/(1.11)^4 + (112,550+1,449,093)/(1.11)^5 = \$1,250,000.$

Example 2: Leased Fee Cap Rate

To illustrate the difference between fee simple and leased fee cap rates, we modify Example 1 to assume that there is an existing lease on the property at a contract rent of \$170,000 per year for the next three years. At the end of the lease, it is assumed that the space will be leased at the market rent at that time – which is the same as the fee simple rent. Assuming expenses, vacancy, and credit loss are still 50% of rental income, the NOI for the next 5 years for the leased fee estate are as follows:

<u>Year</u>	<u>NOI</u>
1	\$ 85,000
2	85,000
3	85,000
4	109,273
5	112,550

The resale price should be the same as the fee simple example above because all leases have been renewed at market rents by the time the property is sold. Therefore, the only difference is the lower NOI due to the lower contract rents during the first three years.

The present value of the NOI and resale price at the same 11% discount rate is now \$1,206,456. This is lower than the \$1,250,000 fee simple value due to the impact of the contract rents. We can now calculate the cap rate implied by the above value. The cap rate is $\$85,000 / 1,206,456 = 7.05\%$. This is lower than the 8% cap rate for the fee simple estate. In effect, the leased fee cap rate is lower because investors anticipate that the NOI will increase significantly when the existing leases expire. Investors are willing to accept a lower cap rate because they will get higher NOI in the future.

It is important to understand that in both examples considered so far, the investor earns the same 11% rate of return. (Reasons that this required return could differ is discussed later.) The difference in cap rate is due to the difference between contract rents and market rents. Because cap rates are based on the first year NOI, cap rates are lower for the leased fee estate when contract rents are below market.

It should be clear from the above examples that leased fee cap rates and fee simple cap rates are not necessarily the same for the same property. Furthermore, many properties that are purchased by investors are leased fee estates. Thus, cap rates for many comparable sales are leased fee cap rates. If this cap rate was applied without adjustment to estimate the value of the property on a fee simple basis, the value would be incorrect. E.g., suppose we apply a 7% cap rate to the \$100,000 NOI for the fee simple estate. This results in a value of \$1,428,571 versus the correct value of \$1,250,000. **Improperly using the leased fee cap rate to estimate the fee simple value results in a value that is \$178,571 or 14% higher than it should be.**

Lower Discount Rate for Leased Fee

A leased fee estate with existing leases in place and seasoned tenants is less risky than if all tenants were assumed to have just signed new leases at the current market rent. This is especially true if the existing contract rents are below the current market rent because it is less likely that a tenant would default on the lease and lose the value of his or her leasehold estate. The rate of return that investors require on a leased fee estate would be lower than that of a fee simple estate due to the lower risk. Conversely, discount rates obtained by surveying investors are for leased fee estates. Thus, the discount rate we use to value a hypothetical fee simple estate would include a premium for the additional risk.⁵

In the previous examples, we assumed that the leased fee discount rate and the fee simple discount rate were the same, i.e., 11%. Suppose 11% actually came from surveys of investors who purchase leased fee estates. It would then be reasonable to assume that a higher rate should be used for a fee simple valuation. To illustrate, suppose the 11% rate for the leased fee estate in Example 2 took into consideration the fact that the contract rent was \$30,000 or 15% below the current market rent and that this reduced the likelihood of the tenant defaulting on the lease. This implies that for the fee simple estate valued in Example 1 we really should have used a higher discount rate, say 11.5%. We know that for the fee simple estate with NOI and value increasing at 3% per year the cap rate can be found by subtracting 3% from 11.5% to get 8.5%. Using this cap rate, the value of the fee simple estate becomes $\$100,000 / .085$ or \$1,176,470. This is \$73,529 or almost 6% lower than the \$1,250,000 value estimated previously for the fee simple estate.

Greater Leasing Commissions and Tenant Improvements for a Fee Simple Estate

When new leases are signed at market rents, especially new tenants, leasing commissions must generally be paid and the tenants will demand that the owner spend money on Tenant Improvements (TIs) to prepare the space for the tenant. In contrast, existing tenants will not typically be paying lease commissions or requesting as much tenant improvements. Even when their leases come up for renewal, there is less chance that a commission will have to be paid or that the owner will have to do further modifications to that tenant's space. Said differently, if it is assumed that the existing space is unencumbered by existing leases and that all the space is leased to new tenants at current market rents, it should also be assumed that more money must be spent for leasing commissions and tenant improvements.

For example, suppose that for our fee simple valuation in Example 1, we recognize the fact that additional costs of leasing commissions and tenant improvements for a fee simple estate equate to a 5% reduction in NOI.⁶ Thus, the NOI for the fee simple estate

⁵ The only situation in which the leased fee discount rate might conceivably be higher is if contract rents exceed market rents by a significant amount resulting in "excess rent."

⁶ It is assumed that the leasing costs and tenant improvements are amortized over the term of the lease and thus reduce the NOI each year. Alternatively, there would be a much greater reduction in NOI the first year. The affect on value should be equivalent.

would be \$100,000 - \$5,000 or \$95,000 per year. Using the same 8% cap rate as first used in Example 1, we obtain a value of \$1,187,500.

Alternatively, rather than adjust the NOI for the additional leasing commissions and tenant improvements, we might adjust the cap rate. To find the cap rate that would have produced the same value, we can divide \$1,187,500 into the \$100,000 NOI used in Example 1 to obtain a cap rate of 8.42% versus 8%.

Summary

We can now summarize the various adjustments illustrated in the above examples. We start with the leased fee cap rate of 7% in Example 2 that would be what is observed from comparable sales.

Leased fee cap rate	7.0%
Adjustment for contract vs. market leases	1.0%
Risk premium for fee simple estate	0.5%
Adjustment for additional leasing commissions and TIs	<u>0.4%</u>
Fee simple cap rate	8.9%

The purpose of these examples is not to indicate the actual amount of adjustment that has to be made to the leased fee cap rate to obtain a fee simple cap rate in other situations. This is up to the appraiser based on his or her analysis of the specific situation. The important thing is that the issues discussed above must be considered in the analysis or it likely that the fee simple estate will be significantly overvalued. Furthermore, the above examples illustrated how a leased fee cap rate could be adjusted to obtain a fee simple cap rate that would be applied to NOI for a fee simple estate. An alternative approach would be to first use a leased fee cap rate to estimate the value of a leased fee estate and then make a lump sum adjustment to the leased fee value to obtain a fee simple value. In this case, the lump sum adjustment would reflect the issues discussed in this paper, i.e., that the values could differ due to differences in market versus contract rents, tenant improvements, leasing commissions, risk, etc.

The leased fee value will seldom equal the fee simple value for all the reasons discussed above. The above examples illustrated how the capitalization rates will differ for a leased fee versus a fee simple estate. This is important when using capitalization rates in the income approach to estimate value. The same issues must be considered when using the other approaches to value, i.e., the sales comparison and cost approach. For example, when using the sales comparison approach the comparable sales will typically have existing tenants and by definition be sales of leased fee estates. Thus, the price of the comparable sale must be adjusted to reflect the different income and expenses for a fee simple estate versus a leased fee estate. The same issues discussed in this paper such as additional tenant improvements, additional leasing commissions, higher reserve allowance, additional risk, etc. must be considered when making this property rights adjustment. The price of the comparable sales would then be adjusted for the difference in value due to the difference in *property rights* for a fee simple versus a leased fee estate. Alternatively, rather than adjust the price of each comparable sale for differences in property rights, the appraiser might first estimate the value of the subject *as if* it was a leased fee estate. Then the value of the subject property would be adjusted as a lump sum adjustment for the difference in property rights associated with a fee simple estate versus a leased fee estate.

The cost approach is often less reliable for real estate income property than the sales comparison or income approach. That said, the cost approach has one advantage in

estimating a fee simple value in that the cost approach results in a value that is unencumbered by existing leases. Thus, it does not normally have to be adjusted when estimating a fee simple value.

In summary, the appraiser must use care when estimating the value of a fee simple estate. This is especially true for the sales comparison and income approaches because comparable sales and capitalization rates come from sales of leased fee estates. There are alternative ways of dealing with this property rights adjustment. The important thing is to consider the various issues outlined in this paper.